REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application in view of the foregoing amendments and the following remarks.

Claims 1, 3-16, 18-31, and 33-42 are pending in the application, with claims 1, 5, 16, 28, 29, and 31 being independent. Applicant amends claims 1, 5, 16, 28, 29, and 31 to further clarify features of the claimed subject matter. The original specification and drawings support these claim amendments, for example page 8, lines 14-18 and page 11, lines 10-12. Therefore, claims 1, 3-16, 18-31, and 33-42 are presented and directed to subject matter of the original disclosure.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103: A. AND B.

A. Claims 1, 3-5, 16, 28-31 and 41-42 stand rejected under 35 U.S.C. § 103(a) as being obvious over the publication titled "Presenting C#", by Christoph Wille (hereinafter Wille) in view of the publication titled "A Comparative Overview of C#", by Ben Albahari (hereinafter Albahari). Applicant respectfully traverses the rejection.

Without conceding the propriety of the stated rejections, and only to advance the prosecution of this application, Applicant amends **independent claim 1**, to further clarify features of the claimed subject matter. Amended claim 1 now recites a software architecture embodied on one or more computer-readable storage media, the software architecture for a distributed computing system comprising (emphasis added):

> an application configured to handle requests
> submitted by remote devices over a network; and
> *a multi-tiered framework comprising*:
> *an application program interface layer*
> organized into multiple root namespaces, the application
> program interface layer to present functions used by the

application to access network and computing resources of the distributed computing system;

    a common language runtime layer, wherein calls to the application program interface layer are handed to the common language runtime layer supporting applications written in one or more different languages and translated into an intermediate supported language, the application program interface comprising various types related to constructing user interfaces, *wherein the types define a collection of classes, interfaces, delegates, enumerations, and structures* which belong to a group assigned a group name associated with one of the root namespaces, and wherein each of the types is referenced by a hierarchical name comprising a top level identifier prefixed to the group name; and

    an operating system layer or an object model service, wherein the calls handed to the common language runtime layer are executed locally by the operating system layer or the object model service.

Applicant respectfully submits that no such method for a multi-tiered framework is disclosed, taught or suggested by Wille and/or Albahari.

References Fail to Teach or Suggest Claimed Software Architecture Comprising a Multi-tiered Framework

The Office has failed to show that Wille and/or Albahari disclose, teach or suggest the claimed multi-tiered framework. For example, the Office cites to pages 16-17 of Wille as teaching or suggesting "wherein calls to the application program interface are handed to a common language runtime layer supporting applications written in different languages and translated into an intermediate supported language." *See* Office Action, page 3. However, nowhere in these pages does Wille disclose, teach, or suggest the claimed multi-tiered framework. Rather, this section of Wille describes metadata.

In contrast, Applicant's amended claim 1 recites "*a multi-tiered framework comprising...an application program interface layer...a common language runtime layer...and an operating system layer.*" To assist the Office in appreciating the claimed subject matter, Applicant provides the following illustrative figure from the Application.
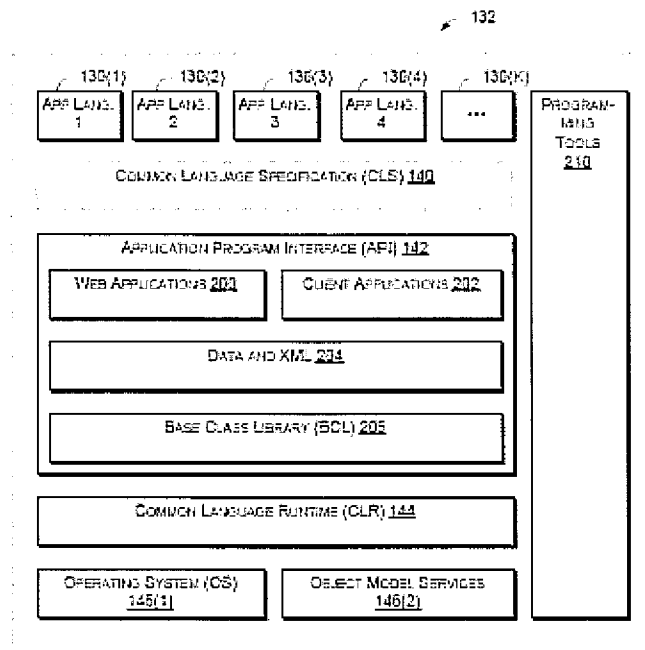

Fig. 2

Further, as stated in the Applicant's specification the framework 132 is a multi-tiered architecture that includes an application program interface (API) layer 142, a common language runtime (CLR) layer 144, and an operating system/services layer 146. This layered architecture allows updates and modifications to various layers without impacting other portions of the framework. (Applicant's Specification, page 8, lines 14-18). Such a framework is not disclosed, taught or suggested by Wille.

Albahari fails to compensate for the deficiencies of Wille. Albahari describes new ways of programming C# offers, and how it intends to improve upon its two closest

neighbors, Java and C++. *See,* Abstract. Albahari fails to disclose, teach or suggest the recited features of Applicant's claim 1.

Thus, Wille and Albahari, alone or in combination, do not disclose, teach, or suggest the claimed subject matter. Accordingly, Applicant submits that the evidence relied upon by the Office does not support the rejections made under § 103, and the Applicant respectfully requests that the § 103 rejection be withdrawn.

Claims 3, 4, and 41 depend directly from independent claim 1 and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant also respectfully requests individual consideration of each dependent claim.

Applicant respectfully submits that the cited references do not render the claimed subject matter obvious and that the claimed subject matter, therefore, patentably distinguishes over the cited references. For all of these reasons, Applicant respectfully requests the § 103 rejection of these claims should be withdrawn.

Independent Claim 5

Without conceding the propriety of the stated rejections, and only to advance the prosecution of this application, Applicant amends **independent claim 5,** to further clarify features of the claimed subject matter. Amended claim 5 now recites "a multi-tiered architecture including an application program interface layer embodied on one or more computer readable storage media, comprising: multiple types related to constructing user interfaces, individual types being associated with one or more groups and being referenced by one or more hierarchical names, wherein each hierarchical name includes a top level identifier prefixed to a group name assigned to one of the one or more groups,

the types comprising classes which represent managed heap allocated data that has reference assignment semantics, interfaces that define a contract that other types can implement, delegates that are object oriented function pointers, structures that represent static allocated data that has value assignment semantics and enumerations which are value types that represent named constants, wherein the application program interface layer is associated with a common language runtime layer supporting applications written in one or more of several different languages and translated into an intermediate language supported by the common runtime layer and included as part of a common language specification for local execution by an operating system or an object model service."

Applicant respectfully submits that no such multi-tiered framework is disclosed, taught or suggested by Wille and/or Albahari.

Applicant respectfully submits that the Office has failed to show that Wille and/or Albarhari disclose, teach or suggest the claimed multi-tiered framework and is allowable for reasons similar to those discussed above with respect to claim 1.

As the Office has failed to show that Wille and/or Albarhari disclose, teach, or suggest the claimed subject matter, Applicant respectfully submits that claim 5 is not obvious over Wille and/or Albahari. Thus, Applicant respectfully requests that the § 103 rejection be withdrawn.

Independent claim 16

Without conceding the propriety of the stated rejections, and only to advance the prosecution of this application, Applicant amends **independent claim 16** to further clarify features of the claimed subject matter. Amended claim 16 now recites a

distributed computer software architecture embodied on one or more computer-readable storage media, the distributed computer software architecture comprising:

> one or more applications configured to be executed on one or more computing devices, the applications handling requests submitted from remote computing devices;
> a networking platform to support the one or more applications;
> an application programming interface to interface the one or more applications with the networking platform, the application programming interface comprising various types related to constructing user interfaces, individual types being associated with one or more groups and being referenced by one or more hierarchical names, wherein each of the hierarchical names includes a top level identifier prefixed to a group name assigned to one of the one or more groups; and
> a common language runtime layer supporting applications written in one or more different languages and translated into an intermediate language supported by the common runtime layer and included as part of a common language specification for local execution by an operating system or an object model service.

Applicant respectfully submits that no such architecture is disclosed, taught or suggested by Wille and/or Albahari.

Applicant respectfully submits that the Office has failed to show that Wille and/or Albarhari disclose, teach or suggest the claimed architecture and is allowable for reasons similar to those discussed above with respect to claim 1.

As the Office has failed to show that Wille and/or Albarhari disclose, teach, or suggest the claimed subject matter, Applicant respectfully submits that claim 16 is not obvious over Wille and/or Albahari. Thus, Applicant respectfully requests that the § 103 rejection be withdrawn.

Claim 42 depends directly from independent claim 16 and is allowable by virtue of this dependency, as well as for additional features that it recites. Applicant also respectfully requests individual consideration of this dependent claim.

Applicant respectfully submits that the cited references do not render the claimed subject matter obvious and that the claimed subject matter, therefore, patentably distinguishes over the cited references. For all of these reasons, Applicant respectfully requests the § 103 rejection of this claim should be withdrawn.

Independent Claim 28

Without conceding the propriety of the stated rejections, and only to advance the prosecution of this application, Applicant amends **independent claim 28** to incorporate language similar to that of dependent claim 15 to further clarify features of the claimed subject matter. Amended claim 28 now recites a computer system including one or more microprocessors and one or more software programs, the one or more software programs utilizing an application program interface to request services from an operating system, the application program interface including separate commands to request services comprising services related to constructing user interfaces, wherein the application program interface groups API functions into multiple namespaces that define a collection of classes which represent managed heap allocated data that has reference assignment semantics, interfaces that define a contract that other types can implement, delegates that are object oriented function pointers, enumerations which are value types that represent named constants and structures that represent static allocated data that has value assignment semantics, the application program interface being associated with a common

language runtime layer supporting applications written in one or more different languages and translated into an intermediate language supported by the common runtime layer, wherein the type comprising the interfaces comprises one or more of the following interfaces:

a button control interface that allows a control to act like a button on a form;

a container control interface that provides functionality for a control to act as a parent for other controls;

an editing notification interface;

a data object interface that provides a format independent mechanism for transferring data;

a feature support interface that specifies a standard interface for retrieving feature information from a current system;

a message filter interface; or

a handle-exposing interface to expose handles.

Applicant respectfully submits that no such architecture is disclosed, taught or suggested by Wille and/or Albahari.

References Fail to Teach or Suggest Claimed Interface

In making out the rejection of claim 15, Applicant agrees with the Office when discussing that Wille and Albahari do not explicitly teach the classes comprise a form class that represents a window or a dialog box that makes up an application's user interface. *See* Office Action, page 10. Further, the Office implies that Wille and

Albahari also fail to teach a button control interface, a container control interface, an editing notification interface, a data object interface, a feature support interface, a message filter interface, and a handle-exposing interface. *See* Office Action, pages 11-12. However, in rejecting claim 15, the Office has failed to show that Williams compensates for their deficiencies. For example, the Office states that Williams teaches the interfaces comprises a message filter interface, citing pages 127 and 128 of Williams. *See* Office Action, page 11. Specifically, the Office cites to the ClassWizard. However, as described by Williams, the ClassWizard adds code. *See* Williams, page 127.

In contrast, Applicant's message filter interface allows an application to capture a message before it is dispatched to a control or form. *See* Applicant's Specification, page 1469.

As the Office has failed to show that Wille, Albarhari, and/or Williams disclose, teach, or suggest the claimed subject matter, Applicant respectfully submits that claim 28 is not obvious over Wille and/or Albahari. Thus, Applicant respectfully requests that the § 103 rejection be withdrawn.

Independent Claim 29

Without conceding the propriety of the stated rejections, and only to advance the prosecution of this application, Applicant amends **independent claim 29** to further clarify features of the claimed subject matter. Amended claim 29 now recites a method, comprising:

> managing network and computing resources for a distributed computing system;
> exposing a set of functions that enable developers to access the network and computing resources of the

distributed computing system, the set of functions comprising functions to facilitate construction of user interfaces wherein the user interfaces includes windowing, menus, and dialogs, and wherein the functions are grouped into multiple namespaces that define a collection of classes which represent managed heap allocated data that has reference assignment semantics, interfaces that define a contract that other types can implement, delegates that are object oriented function pointers, enumerations which are value types that represent named constants and structures that represent static allocated data that has value assignment semantics; and

using a common language runtime layer supporting applications written in one or more different languages and translated into an intermediate language supported by the common runtime layer.

Applicant respectfully submits that no such architecture is disclosed, taught or suggested by Wille and/or Albahari.

References Fail to Teach or Suggest Claimed Method Comprising User Interface

Applicant agrees with the Office that Wille does not explicitly teach types related to constructing user interfaces. *See* Office Action, page 9.

However, the Office has failed to show that Wille and/or Albahari disclose, teach or suggest the claimed method. For example, the Office cites Albahari to the sections "Libraries" and "Platform Interopability". *See,* Office Action, page 9. However, no where in these sections does Albahari discuss the claimed construction of a user interface. Rather, Albahari describes the utilization of libraries and how they provide extensive capabilities to write HTML/DTML solutions. *See* Albahari, sections 25 and 26.

In contrast, Applicant's amended claim 31 recites *"creating a namespace with functions that enable drawing and construction of user interfaces wherein the user interface includes windowing, menus, and dialogs."*

Thus, Wille and Albahari, alone or in combination, do not disclose, teach, or suggest the claimed subject matter. Accordingly, Applicant submits that the evidence relied upon by the Office does not support the rejections made under § 103, and the Applicant respectfully requests that the § 103 rejection be withdrawn.

Independent Claim 31

Without conceding the propriety of the stated rejections, and only to advance the prosecution of this application, Applicant amends **independent claim 31** to further clarify features of the claimed subject matter. Amended claim 31 now recites a method, comprising creating a namespace with functions that enable drawing and construction of user interfaces wherein the user interfaces include windowing, menus, and dialogs, the namespace defining classes which represent managed heap allocated data that has reference assignment semantics, interfaces that define a contract that other types can implement, delegates that are object oriented function pointers, structures that represent static allocated data that has value assignment semantics, and enumerations which are value types that represent named constants.

Applicant respectfully submits that no such architecture is disclosed, taught or suggested by Wille and/or Albahari.

Applicant respectfully submits that the Office has failed to show that Wille and/or Albarhari disclose, teach or suggest the claimed method and is allowable for reasons similar to those discussed above with respect to claim 29.

Thus, Wille and Albahari, alone or in combination, do not disclose, teach, or suggest the claimed subject matter. Accordingly, Applicant submits that the evidence relied upon by the Office does not support the rejections made under § 103, and the Applicant respectfully requests that the § 103 rejection be withdrawn.

B. Claims 6-15, 18-27 and 33-40 stand rejected under 35 U.S.C. § 103(a) as being obvious over Wille in view of Albahari further in view of the publication titled "Teach Yourself Visual C++ 6 in 24 Hours", by Mickey Williams (hereinafter Williams). Applicant respectfully traverses the rejection.

As explained above, Applicant submits that Wille and/or Albahari fail to disclose, teach, or suggest the features of independent claims 5, 16, and 31. **Dependent claims 6-15, 18-27 and 33-40** depend directly or indirectly from one of independent claims 5, 16, and 31, respectively, and are allowable by virtue of this dependency. These dependent claims are also allowable for their own recited features that, in combination with those recited in claims 5, 16, and 31, are not disclosed, taught or suggested by Wille and/or Albahari.

Williams fails to compensate for the deficiencies of Wille and/or Albahari. Williams teaches users Visual C++ in 24 hours. *See* Title. In contrast, Applicant's specification describes an application program interface for network software platform. In particular, a framework that includes an application program interface (API) layer, a

common language runtime (CLR) layer, and an operating system/services layer. Further, This layered architecture allows updates and modifications to various layers without impacting other portions of the framework. (Applicant's Specification, page 8, lines 14-18).

For example, turning to claim 15. Claim 15 recites an application program interface as recited in claim 5, wherein the type comprising the interfaces comprises one or more of the following interfaces:

a button control interface that allows a control to act like a button on a form;

a container control interface that provides functionality for a control to act as a parent for other controls;

an editing notification interface;

a data object interface that provides a format independent mechanism for transferring data;

a feature support interface that specifies a standard interface for retrieving feature information from a current system;

a message filter interface; and

a handle-exposing interface to expose handles.

Applicant respectfully submits that no such architecture is disclosed, taught or suggested by Wille , Albahari and/or Williams.

Applicant respectfully submits that the Office has failed to show that Wille, Albarhari and/or Williams disclose, teach or suggest the claimed method and is allowable for reasons similar to those discussed above with respect to independent claim 28.

Claims 6-15, 18-27 and 33-40 depend directly from independent claims 5, 16, and 31, respectively, and are allowable by virtue of this dependency, as well as for additional features that they recite. Applicant also respectfully requests individual consideration of these dependent claims.

Applicant respectfully submits that the cited references do not render the claimed subject matter obvious and that the claimed subject matter, therefore, patentably distinguishes over the cited references. For all of these reasons, Applicant respectfully requests the § 103 rejection of this claim should be withdrawn.
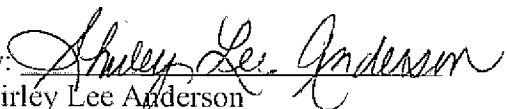
CONCLUSION

Claims 1, 3-16, and 18-42 are in condition for allowance. Applicant respectfully requests reconsideration and prompt allowance of the subject application. If any issue remains unresolved that would prevent allowance of this case, the Office is requested to contact the undersigned attorney to resolve the issue.

Respectfully submitted,

Lee & Hayes, PLLC

Date: 3-25-2008

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